

CLAIMS

What is claimed:

- 1 Suba1> 1. A method of displaying a program progress time on a picture tube of a TV
2 receiver which receives and processes program guide information containing a program
3 schedule, comprising the steps of:
4 (a) storing the program guide information;
5 (b) setting a command of the TV receiver which is commonly usable by a user as
6 a display command to display time information about a currently viewed program on the
7 picture tube; and
8 (c) displaying the time information about the currently viewed program on the
9 picture tube when the user issues the display command set in said step (b).
- 1 2. A method of displaying a program progress time as claimed in claim 1, further
2 comprising the step of displaying the time information together with the currently viewed
3 program on the picture tube.
- 1 3. A method of displaying a program progress time as claimed in claim 1,
2 wherein the time information is a program terminating time of the currently viewed program.
- 1 Suba2> 4. A method of displaying a program progress time as claimed in claim 3,
2 wherein the time information further comprises a beginning time and a current time with
3 respect to the currently viewed program.
- 1 5. A method of displaying a program progress time as claimed in claim 4,
2 wherein the time information includes the program progress time determined by subtracting
3 the beginning time from the current time.

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1 6. A method of displaying a program progress time as claimed in claim 5,
2 wherein the time information further comprises a remaining program time determined by
3 subtracting the current time from the program terminating time.

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2 7. A method of displaying a program progress time as claimed in claim 6, further
3 comprising the step of displaying next program information when the remaining program
time reaches to a preset time.

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2 8. A method of displaying a program progress time as claimed in claim 7,
3 wherein the time information further comprises a percentage of the program progress time as
4 compared with a total program broadcasting time calculated by subtracting the beginning time
from the program terminating time.

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2 9. A method of displaying a program progress time as claimed in claim 8,
3 wherein the time information further comprises a percentage of the remaining program time
as compared with the total program broadcasting time.

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2 10. A method of displaying a program progress time as claimed in claim 1,
3 wherein the commonly usable command of the TV receiver is a command for a channel
up/down.

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2 11. A method of displaying a program progress time as claimed in claim 1,
3 wherein the commonly usable command of the TV receiver is a command for a remote
controller event.

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2 12. A method of displaying a program progress time as claimed in claim 1, further
3 comprising the step of judging that the command for displaying the program progress time is
4 issued by the user so as to display the program progress time at a preset time set by the user
prior to a program terminating time of the currently viewed program.

1 13. A method of displaying a program progress time in a TV receiver which
2 receives and processes program guide information containing a program schedule, comprising
3 the steps of:
4 receiving and storing the program guide information;
5 determining a total program broadcasting time of a currently viewed program by
6 subtracting a program beginning time from a program terminating time of the currently
7 viewed program when a user issues a command requesting the displaying of the program
8 progress time of the currently viewed program;
9 determining the program progress time by subtracting the beginning time from a
10 current time;
11 displaying a display bar representing the total program broadcasting time; and
12 displaying the display bar so as to indicate a position on the display bar corresponding
13 ~~to the program progress time.~~

1 14. A method of displaying a program progress time as claimed in claim 13,
2 further comprising the step of displaying the display bar by distinguishing between a portion
3 of the program progress time elapsed and a remaining program progress time portion.

1 15. A method of displaying a program progress time as claimed in claim 14,
2 further comprising the step of displaying the program progress time on a portion of the
3 display bar between a starting position of the display bar and a position corresponding to the
4 program progress time on the display bar.

1 16. A method of displaying a program progress time as claimed in claim 14,
2 comprising the step of displaying the remaining program progress time on a portion of the
3 display bar between a position corresponding to the program progress time and an end
4 position of the display bar.

1 Sub 05/ 17. A method of displaying a program progress time of a currently viewed
2 program of a television (TV) receiver, the method comprising the steps of:
3 receiving program guide information including a program schedule having the
4 currently viewed program; and
5 displaying the program progress time of the currently viewed program in response to
6 a command from a user to perform a function other than displaying the program progress
7 time upon receipt of the command.

1 18. The method as claimed in claim 17, wherein the command is one of an
2 activating a channel up/down key, determining an occurrence of a remote controller event,
3 and setting of a preset time prior to a program termination of the currently viewed program.

1 19. The method as claimed in claim 17, wherein said displaying step comprises the
2 step of simultaneously displaying the program progress time and the currently viewed
3 program.

1 20. The method as claimed in claim 17, further comprising the steps of:
2 generating a setup display for the user to designate ones of a plurality of commands to
3 function as the command to perform the function other than displaying the program progress
4 time upon receipt of the command; and
5 receiving inputs from the user designating the ones of the plurality of the commands
6 to function as the command to perform the function other than displaying the program
7 progress time upon receipt of the command.

1 Sub 06/ 21. The method as claimed in claim 17, further comprising the step of displaying
2 next program information of a next program on a same channel as the currently viewed
3 program at the preset time prior to the program termination of the currently viewed program.

Sub C 22. The method as claimed in claim 17, further comprising the steps of:

generating a setup display for the user to designate ones of a plurality of commands to function as the command to perform the function other than displaying the program progress time upon receipt of the command, wherein a one of the plurality of commands is to display the program progress time at a preset time prior to a program termination of the currently viewed program, and for the user to designate another command to display next program information on a same channel as the currently viewed program at the preset time;

receiving inputs from the user designating whether the ones of the plurality of the commands are to function as the command to perform the function other than displaying the program progress time upon receipt of the command; and

displaying the next program information at the preset time if the first and the another commands are set by the user positively.

Sub B 23. The method as claimed in claim 17, wherein the program progress time includes a program beginning time, a current time, and a program termination time of the currently viewed program.

24. The method as claimed in claim 23, wherein the program progress time further includes a channel number, a name of a broadcast station and a title of the currently viewed program.

Sub A 25. The method as claimed in claim 23, wherein said displaying step comprises the step of displaying the beginning time at a start of a display bar, the program termination time at end of the display bar, and the current time at a position of the display bar corresponding to a percentage of time elapsed versus a total time of the currently viewed program.

26. The method as claimed in claim 25, wherein said displaying step further comprises the step of displaying a first percentage number of the time elapsed and a second percentage number of a time remaining versus the total time of the currently viewed program.

1 27. The method as claimed in claim 25, wherein the command is to display the
2 program progress time automatically at a preset time prior to a program termination of the
3 currently viewed program.

4 28. A device for displaying a program progress time, comprising:
5 a receiving unit to receive a TV program and a TV program guide containing a
6 program schedule which includes information on the TV program;
7 a user interface to enable entry of a command from a user requesting display of the
8 program progress time;
9 an audio output unit to generate an audio signal of the TV program;
10 a processor to produce On-Screen-Graphic data for displaying the program progress
11 time in response to the command from the user and based upon the program schedule;
12 a video output unit to mix video data of the TV program and On-Screen-Graphic data
13 of the TV program, to output a resulting signal; and
14 a display to display the resulting signal.

1 29. The device as claimed in claim 28, wherein the command is one of an
2 activating a channel up/down key, determining an occurrence of a remote controller event,
3 and setting of a preset time prior to a program termination of the currently viewed program.

1 30. The device as claimed in claim 28, wherein said processor produces ON-
2 Screen Graphic data for displaying next program information of a next program on a same
3 channel as the TV program at a preset time prior to a program termination of the TV
4 program.

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